

weight ratio of 80:20 in a Brabender Plasti-corder mixer at a temperature of 170°C for 23 minutes. The resulting blend was removed from the Brabender mixer, cooled, ground and dried under vacuum at 50°C for 24 hours.

- 5 Inherent viscosity using HFIP as a solvent was 1.83 dL/g.

EXAMPLE 5

- 10 Blending of a 85:15 (mol/mol) poly(lactide-co-glycolide) copolymer with a 95:5 (mol/mol) poly(ϵ -caprolactone-co-p-dioxanone) copolymer at a blended weight ratio of 60:40

- 15 18.6 grams of a 85:15 (mol/mol) poly(lactide-co-glycolide) prepared as described in Example 1 was melt blended with 12.4 grams of the 95:5 (mol/mol) poly(ϵ -caprolactone-co-p-dioxanone) copolymer of Example 2 at a weight ratio of 60:40 in a Brabender Plasti-corder mixer at a temperature of 170°C for 23 minutes. The resulting
20 blend was removed from the Brabender mixer, cooled, ground and dried under vacuum at 50°C for 24 hours. Inherent viscosity using HFIP as a solvent was 1.80 dL/g.

EXAMPLE 6

Synthesis of a 60:40 (mol/mol) poly(ϵ -caprolactone-co-L-lactide) copolymer

- 5 The method described below in this example is similar to those described in U.S. Patent Nos. 4,643,191, 4,653,497, 5,007,923, 5,047,048 which are incorporated by reference, and is known to those skilled in the art.
- 10 To a flame dried 500 mL 1-neck round bottom flask equipped with an overhead mechanical stirrer and nitrogen inlet, 165.75 grams (1.45 moles) of ϵ -caprolactone, 139.68 grams (0.97 moles) of L-lactide, 0.84 grams (0.011 moles) of glycolic acid initiator, and 147 microliters of a 0.33 M
- 15 solution of stannous octoate catalyst are added.

- The assembly is then placed in a high temperature oil bath at 190°C. The stirred monomers quickly began to melt. The low viscosity melt quickly increased in viscosity. Mechanical
- 20 stirring of the high viscosity melt is continued for a total reaction time of 24 hours.

- The 60:40 (mol/mol) poly(ϵ -caprolactone-co-L-lactide) copolymer is removed from the bath, cooled to room
- 25 temperature under a stream of nitrogen, isolated and ground. The polymer is then dried under vacuum at 40°C for 24 hours. Inherent viscosity using HFIP as a solvent is 1.92 dL/g.

EXAMPLE 7

Injection molding a circular plate (of Fig. 1) of a blend of
85:15 poly(lactide-co-glycolide) copolymer and 95:5 poly(ϵ -
5 caprolactone-co-p-dioxanone) copolymer at a blended weight
ratio of 95:5

1.5 Kg of a blend as formed in Example 3 was added to a
nitrogen purged hopper of a 28 ton Engel injection molder
10 equipped with an 18 mm diameter barrel to form a circular
plate as shown in Fig.1. Three heating zones of 180, 170,
and 140°C were employed to melt the blend as it entered the
barrel. A nozzle temperature of 185°C with an injection
pressure of 700 psi and a speed of 2 in/s were used to feed
15 the molten material down the barrel. Each injection produced
a single part in a single cavity mold. A temperature of 45°C
was used in the mold to optimize the stress levels in the
part. Using this process 2 parts are formed per minute.

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EXAMPLE 8

A circular burr hole cover plate (as illustrated in Figure
1) was manufactured from the matrix described in Example 3
25 by the injection molding process described in Example 7.
The plate was then immersed in a vessel containing a
biocompatible heat transfer medium (i.e. warm water, . . .)
at a temperature of about 50-60°C, until the plate became
clear. This visual cue signals the surgeon that the plate
30 may be removed from the vessel and shaped by bending it
without causing damage to the plate. The surgeon would then